

IN THE CLAIMS:

Please AMEND claims 1-4, 7-9, 11, 15, 17, 20, 22, 24, and 25, as follows.

1. (Currently Amended) An absorption belt capable of absorbing an object, comprising:

a base layer;

an insulating layer on said base layer;

a plurality of electrodes embedded alternately with positive and negative in said insulating layer; and

a plurality of ~~absorption~~ layers for covering each of said electrodes, at least two of said ~~absorption~~ layers having different volume resistivities, said plurality of ~~absorption~~ layers including a first ~~absorption~~ layer directly covering said plurality of electrodes and said insulating layer and a second ~~absorption~~ layer disposed above said first ~~absorption~~ layer, said second ~~absorption~~ layer having a volume resistivity Ra2 smaller than a volume resistivity Ra1 of said first ~~absorption~~ layer, a volume resistivity of a resin which is a main ingredient of said second ~~absorption~~ layer before a control of resistance being $1.0 \times 10^{16} \Omega \cdot \text{cm}$ or less[[.]],

wherein a surface of each of said plurality of electrodes, which faces in a direction of a thickness of said absorption belt, is in contact with said first layer or said base layer, a surface of each of said plurality of electrodes, which faces in a direction perpendicular to the direction of the thickness of said absorption belt, is in contact with said insulating layer, said plurality of electrodes and said insulating layer are arranged alternately with each other in the direction perpendicular to the direction of the thickness of said absorption belt, and respective

volume resistivities of said insulating layer and said base layer are larger than that of said first layer.

2. (Currently Amended) An absorption belt capable of absorbing an object, comprising:

a base layer;

an insulating layer on said base layer;

a plurality of electrodes embedded alternately with positive and negative in said insulating layer; and

a plurality of ~~absorption~~ layers for covering each of said electrodes, at least two of said ~~absorption~~ layers having different volume resistivities and including a first ~~absorption~~ layer directly covering said plurality of electrodes and said insulating layer and a second ~~absorption~~ layer disposed above said first ~~absorption~~ layer, said second ~~absorption~~ layer having a volume resistivity R_{a2} smaller than a volume resistivity R_{a1} of said first ~~absorption~~ layer, an uppermost layer of said ~~absorption~~ layers including a fluoride resin.

3. (Currently Amended) The absorption belt according to claim 1, wherein said volume resistivity R_{a1} of said first ~~absorption~~ layer directly disposed on each of said electrodes is within the range of $1.0 \times 10^{11} \Omega \cdot \text{cm}$ - $1.0 \times 10^{14} \Omega \cdot \text{cm}$, and said volume resistivity R_{a2} of said second ~~absorption~~ layer disposed above said first ~~absorption~~ layer is within the range of $1.0 \times 10^8 \Omega \cdot \text{cm}$ - $1.0 \times 10^{12} \Omega \cdot \text{cm}$, and wherein said volume resistivity R_{a1} is larger than said volume resistivity R_{a2} ($R_{a1} > R_{a2}$).

4. (Currently Amended) The absorption belt according to claim 2, wherein said volume resistivity Ra1 of said first ~~absorption~~ layer directly disposed on each of said electrodes is within the range of $1.0 \times 10^{11} \Omega \cdot \text{cm}$ - $1.0 \times 10^{14} \Omega \cdot \text{cm}$, and said volume resistivity Ra2 of said second ~~absorption~~ layer disposed above said first ~~absorption~~ layer is within the range of $1.0 \times 10^8 \Omega \cdot \text{cm}$ - $1.0 \times 10^{12} \Omega \cdot \text{cm}$, and wherein said volume resistivity Ra1 is larger than said volume resistivity Ra2 ($Ra1 > Ra2$).

5. (Original) The absorption belt according to claim 3, wherein a volume resistivity Ri of said insulating layer positioned between said electrodes is $1.0 \times 10^{13} \Omega \cdot \text{cm}$ or more, and a volume resistivity Rb of said base layer is within the range of $1.0 \times 10^{11} \Omega \cdot \text{cm}$ - $1.0 \times 10^{13} \Omega \cdot \text{cm}$, and wherein the relationship that $Ri \geq Rb > Ra1 > Ra2$ is satisfied.

6. (Original) The absorption belt according to claim 4, wherein a volume resistivity Ri of said insulating layer positioned between said electrodes is $1.0 \times 10^{13} \Omega \cdot \text{cm}$ or more, and a volume resistivity Rb of said base layer is within the range of $1.0 \times 10^{11} \Omega \cdot \text{cm}$ - $1.0 \times 10^{13} \Omega \cdot \text{cm}$, and wherein the relationship that $Ri \geq Rb > Ra1 > Ra2$ is satisfied.

7. (Currently Amended) A method for producing an absorption belt capable of absorbing an object, comprising the steps of:

(a) winding a base layer sheet on a core member so that the both ends of said base layer sheet overlap with each other;

(b) providing an insulating layer sheet having a plurality of openings;

(c) ~~(b)~~ winding ~~an~~ said insulating layer sheet on said base layer sheet; ~~said~~
~~insulating layer sheet having a plurality of openings;~~

(d) ~~(c)~~ disposing an electrode sheet with respect to each of said openings of
said insulating layer sheet, so that a surface of said electrode sheet, which faces in a direction
perpendicular to a direction of the thickness of said insulating layer sheet, is in contact with said
insulating layer sheet;

(e) ~~(d)~~ winding a first sheet for an absorption layer on said insulating layer
sheet so that the both ends of said first sheet overlap with each other and each electrode sheet is
covered with said first sheet;

(f) ~~(e)~~ winding a second sheet for said absorption layer on said first sheet so
that the both ends of said second sheet overlap with each other, said second sheet having a
volume resistivity R_{a2} smaller than a volume resistivity R_{a1} of said first sheet, a volume
resistivity of a resin which is a main ingredient of said second sheet before a control of resistance
begin $1.0 \times 10^{16} \Omega \cdot \text{cm}$ or less;

(g) ~~(f)~~ covering a circumferential surface of said second sheet with a
cylindrical member; and

(h) ~~(g)~~ thermally joining adjacent sheets and said overlapped portions[[]],
wherein respective volume resistivities of said insulating layer sheet and said
base layer sheet are larger than that of said first sheet.

8. (Currently Amended) A method for producing an absorption belt capable of absorbing an object, comprising the steps of:

(a) winding a base layer sheet on a core member so that the both ends of said base layer sheet overlap with each other;

(b) providing an insulating layer sheet having a plurality of openings;

(c) ~~(b)~~ winding ~~an~~ said insulating layer sheet on said base layer sheet, ~~said insulating layer sheet having a plurality of openings;~~

(d) ~~(c)~~ disposing an electrode sheet with respect to each of said openings of said insulating layer sheet, so that a surface of said electrode sheet, which faces in a direction perpendicular to a direction of the thickness of said insulating layer sheet, is in contact with said insulating layer sheet;

(e) ~~(d)~~ winding first sheet for an absorption layer on said insulating layer sheet so that the both ends of said first sheet overlap with each other and each electrode sheet is covered with said first sheet;

(f) ~~(e)~~ winding a second sheet for said absorption layer on said first sheet so that the both ends of said second sheet overlap with each other, said second sheet having a volume resistivity R_{a2} smaller than a volume resistivity R_{a1} of said first sheet, said second sheet including a fluoride resin;

(g) ~~(f)~~ covering a circumferential surface of said second sheet with a cylindrical member; and

(h) ~~(g)~~ thermally joining adjacent sheets and said overlapped portions[[.]],

wherein respective volume resistivities of said insulating layer sheet and said base layer sheet are larger than that of said first sheet.

9. (Currently Amended) A method for producing an absorption belt capable of absorbing an object, comprising the steps of:

(a) winding a base layer sheet on a core member so that the both ends of said base layer sheet overlap with each other;

(b) providing an insulating layer sheet having a plurality of openings;

(c) ~~(b)~~ winding an said insulating layer sheet on said base layer, ~~said insulating layer sheet having a plurality of openings;~~

(d) ~~(c)~~ disposing an electrode sheet with respect to each of said openings of said insulating layer sheet, so that a surface of said electrode sheet, which faces in a direction perpendicular to a direction of the thickness of said insulating layer sheet, is in contact with said insulating layer sheet;

(e) ~~(d)~~ winding first sheet for an absorption layer on said insulating layer sheet so that the both ends of said first sheet overlap with each other and each electrode sheet is covered with said first sheet;

(f) ~~(e)~~ winding second sheet for said absorption layer on said first sheet so that the both ends of said second sheet overlap with each other, said second sheet having a volume resistivity R_{a2} smaller than a volume resistivity R_{a1} of said first sheet;

(g) ~~(f)~~ covering a circumferential surface of said second sheet with a cylindrical member; and

(h) (g) thermally joining adjacent sheets and said overlapped portions[[]],

wherein respective volume resistivities of said insulating layer sheet and said base layer are larger than that of said first sheet.

10. (Original) The method according to claim 9, wherein the relationship that $R_i \geq R_b > R_{a1} > R_{a2}$ is satisfied where R_i is a volume resistivity of said insulating layer sheet and R_b is a volume resistivity of said base layer sheet.

11. (Currently Amended) An absorption belt having an absorption surface and capable of absorbing an object on said absorption surface, comprising:

an insulating layer;

a plurality of electrodes embedded alternately with positive and negative in said insulating layer at a predetermined interval; and

an absorption layer disposed on each of said electrodes and having a volume resistivity different from a volume resistivity of said insulating layer;

~~wherein said insulating layer and said absorption layer appear alternately on said absorption surface.~~

wherein a surface of each of said plurality of electrodes, which faces in a direction of a thickness of said absorption belt, is in contact with said absorption layer or said base layer, a surface of each of said plurality of electrodes, which faces in a direction perpendicular to the direction of the thickness of said absorption belt, is in contact with said insulating layer, said plurality of electrodes and said insulating layer are arranged alternately with

each other in the direction perpendicular to the direction of the thickness of said absorption belt, and respective volume resistivities of said insulating layer and said base layer are larger than that of said absorption layer.

12. (Original) The absorption belt according to claim 11, wherein said volume resistivity of said absorption layer is smaller than that of said insulating layer.

13. (Original) The absorption belt according to claim 11, wherein said volume resistivity of said absorption layer is within the range of $1.0 \times 10^8 \Omega \cdot \text{cm}$ - $1.0 \times 10^{14} \Omega \cdot \text{cm}$, and wherein said volume resistivity of said insulating layer is $1.10 \times 10^{13} \Omega \cdot \text{cm}$, and wherein said volume resistivity of said insulating layer is $1.0 \times 10^{13} \Omega \cdot \text{cm}$ or more.

14. (Original) An image forming apparatus for forming an image on a printing medium, comprising the absorption belt according to claim 11 as a means for transferring said printing medium.

15. (Currently Amended) A method for producing an absorption belt capable of absorbing an object, comprising the steps of:

(a) winding a base layer sheet on a core member so that the both ends of said base layer sheet overlap with each other;

(b) providing an insulating layer sheet having a plurality of openings;

~~(c) (b)~~ winding ~~an~~ said insulating layer sheet on said base layer sheet; ~~said~~
~~insulating layer sheet having a plurality of openings;~~

~~(d) (c)~~ disposing an electrode sheet with respect to each of said openings of
said insulating layer sheet, so that a surface of said electrode sheet, which faces in a direction
perpendicular to a direction of the thickness of said insulating layer sheet, is in contact with said
insulating layer sheet;

~~(e) (d)~~ disposing absorption layer sheet for covering each electrode sheet with
respect to each of said openings of said insulating layer sheet;

~~(f) (e)~~ covering a circumferential surface of said insulation layer sheet with a
cylindrical member; and

~~(g) (f)~~ thermally joining adjacent sheets and said overlapped portions[[.]],
wherein respective volume resistivities of said insulating layer sheet and said
base layer sheet are larger than that of said first sheet.

16. (Original) The method according to claim 15, wherein the relation that
 $R_i \geq R_b > R_a$ is satisfied where R_b is a volume resistivity of said base layer sheet, R_i is a volume
resistivity of said insulating layer sheet and R_a is a volume resistivity of said absorption layer
sheet.

17. (Currently Amended) An absorption belt having an absorption surface
and capable of absorbing an object on said absorption surface, comprising:

an insulating layer;

a plurality of electrodes embedded alternately with positive and negative in said insulating layer at a predetermined interval; and
an absorption layer disposed on each of said electrodes and having a volume resistivity smaller than a volume resistivity of said insulating layer; and
an under-electrode layer disposed under each of said electrodes and having a volume resistivity smaller than that of said insulating layer but larger than that of said absorption layer;

wherein said insulating layer and said absorption layer appear alternately on said absorption layer, and wherein said insulating layer and said under-electrode layer appear alternately on the opposite surface of said absorption surface[[]], and

wherein a surface of each of said plurality of electrodes, which faces in a direction of a thickness of said absorption belt, is in contact with said absorption layer or said base layer, a surface of each of said plurality of electrodes, which faces in a direction perpendicular to the direction of the thickness of said absorption belt, is in contact with said insulating layer, said plurality of electrodes and said insulating layer are arranged alternately with each other in the direction perpendicular to the direction of the thickness of said absorption belt, and respective volume resistivities of said insulating layer and said base layer are larger than that of said absorption layer.

18. (Original) The absorption belt according to claim 17, wherein said volume resistivity of said absorption layer is within the range of $1.0 \times 10^8 \Omega \cdot \text{cm}$ - $1.0 \times 10^{12} \Omega \cdot \text{cm}$, said volume resistivity of said under-electrode layer is within the range of

$1.0 \times 10^{10} \Omega \cdot \text{cm}$ - $1.0 \times 10^{14} \Omega \cdot \text{cm}$, and said volume resistivity of said insulating layer is $1.0 \times 10^{13} \Omega \cdot \text{cm}$ or more.

19. (Original) An image forming apparatus for forming an image on a printing medium, comprising the absorption belt according to claim 17 as a means for transferring said printing medium.

20. (Currently Amended) A method for producing an absorption belt capable of absorbing an object, comprising the steps of:

(a) providing an insulating layer sheet having a plurality of openings and disposing an under-electrode layer sheet, an electrode sheet and an absorption layer sheet in each of said openings of said insulating layer sheet in turn;

(b) temporarily fixing adjacent sheets to each other;

(c) winding said insulating layer sheet on a core member so that the both ends of said insulating layer sheet overlap with each other;

(d) covering a circumferential surface of said insulating layer sheet with a cylindrical member; and

(e) thermally joining adjacent sheets and said overlapped portion[[]],

wherein a surface of said electrode sheet, which faces in a direction of a thickness said absorption belt, is in contact with said absorption layer sheet or a base layer sheet, a surface of said electrode sheet, which faces in a direction perpendicular to the direction of the thickness of said absorption belt, is in contact with said insulating layer sheet, said electrode

sheet and said insulating layer sheet are arranged alternately with each other in the direction perpendicular to the direction of the thickness of said absorption belt, and respective volume resistivities of said insulating layer sheet and said base layer sheet are larger than that of said absorption layer sheet.

21. (Original) The method according to claim 20, wherein said volume resistivities of said sheets are selected so that the relationship that $R_i \geq R_1 > R_a > R_e$ is satisfied where R_i is a volume resistivity of said insulating layer sheet, R_1 is a volume resistivity of said under-electrode layer sheet, R_e is a volume resistivity of said electrode sheet, R_a is a volume resistivity of said absorption layer sheet.

22. (Currently Amended) An absorption belt capable of absorbing an object, comprising:

an insulating layer;

a plurality of electrodes arranged alternately with positive and negative with respect to said insulating layer; and

a plurality of ~~feeding~~ terminals, each of said feeding terminals connected with each of said electrodes and disposed on the side of ~~one of longitudinal edges of~~ said belt, said ~~feeding~~ terminals for feeding positive voltage to the electrode exposed outside of the side of one of a first surface, to which the object is absorbed, and a second surface opposite to the first surface, said terminals for feeding negative voltage to the electrode exposed outside of other of said first surface and second surface ~~surface or a back of said belt, said feeding terminals for~~

~~feeding negative voltage exposed outside on the side of the other of said surface or said back of said belt.~~

23. (Original) An image forming apparatus for forming an image on a printing medium, comprising the absorption belt according to claim 22 as a means for transferring said printing medium.

24. (Currently Amended) A method for producing an absorption belt capable of absorbing an object, comprising the steps of:

(a) forming a first lamination by laminating a first feeding terminal layer sheet and ~~an~~ a first absorption layer sheet over ~~an~~ a first electrode sheet and laminating ~~an~~ a first under-electrode layer sheet under said first electrode sheet;

(b) forming a second lamination by ~~laminating said absorption layer sheet over said electrode sheet and~~ laminating ~~said~~ a second feeding terminal layer sheet and a second absorption layer sheet over a second electrode sheet and laminating a second ~~said~~ under-electrode layer sheet under said second electrode sheet;

(c) providing an insulating layer sheet having a plurality of openings and alternately disposing said first lamination formed in step (a) and said second lamination formed in step (b) in said openings of said insulating layer sheet;

(d) winding said insulating layer sheet on a core member so that the both ends of said insulating layer sheet overlap with each other;

(e) covering a circumferential surface of said insulating layer sheet with a cylindrical member; and

(f) thermally joining adjacent sheets and said overlapped portions[[]],

wherein a surface of said first electrode sheet, which faces in a direction of a thickness of said absorption belt, is in contact with said first absorption layer sheet or a base layer sheet, a surface of said second electrode sheet, which faces in the direction of a thickness of said absorption belt, is in contact with said second absorption layer sheet or a base layer sheet, respective surfaces of said first and second electrode sheets, which faces in a direction perpendicular to the direction of the thickness of said absorption belt, are contact with said insulating layer sheet, said first electrode sheet or said second electrode sheet and said insulating layer sheet are arranged alternately with each other in the direction perpendicular to the direction of the thickness of said absorption belt, and a volume resistivity of said insulating layer sheet is larger than that of said first and second absorption layer sheets.

25. (Currently Amended) An absorption belt capable of absorbing an object, comprising:

a base layer;

an insulating layer on said base layer;

a plurality of electrodes embedded alternately with positive and negative in said insulating layer; and

a plurality of layers for directly covering each of said electrodes and said insulating layer, at least two of said layers having different volume resistivities[[]],

wherein a surface of each of said plurality of electrodes, which faces in a direction of a thickness of said absorption belt, is contact with one of said plurality of layers, a surface of each of said plurality of electrodes, which faces in a direction perpendicular to the direction of the thickness of said absorption belt, is in contact with said insulating layer, said plurality of electrodes and said insulating layer are arranged alternately with each other in the direction perpendicular to the direction of the thickness of said absorption belt, and a volume resistivity of said insulating layer is larger than that of said one of plurality of layers.

26. (Original) The absorption belt according to claim 25, wherein volume resistivities of said plurality of layers disposed on each of said electrodes are set to decrease in accordance with a distance from each of said electrodes.